CIVIL XPERTS
ISO 9001:2008
ONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

**NABL ACCREDITED AS PER ISO/IEC 17025:2005**

Job No.: CECTC/BBMP/MS/W.No.12&13/CEMENT/2016-17 Date: 21.03.2017

## TEST REPORT ON CEMENT

| | | |
|---|---|---|
| CLIENT | : | **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| AGENCY | : | **Sri. Muraliswamy,** Contractor, Bangalore. |
| NAME OF THE WORK | : | Improvements & Asphalting of ward roads & connecting roads in Ward No.12 & 13 of Shettyhalli subdivision, Dasarahalli Zone, Package No.DZ 2015-16-(01), BBMP, Bangalore. |
| SAMPLE ID | : | Cement |
| DATE OF TESTING | : | 21.03.2017 |

The results of the tests conducted on the cement sample are as follows:

| Sl. No | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 8112-2013 |
|---|---|---|---|---|
| 1 | Standard Consistency | IS-4031 (Part -4) 1988(RA-2009) | 27.50 % | - |
| 2 | a) Initial Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 160 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part -5) 1988(RA-2009) | 425 Minutes | Not More than 600 Minutes |
| 3 | Soundness by Le Chartlier Method | IS-4031 (Part-3) 1988(RA-2009) | 1 mm | Not more than 10mm |

Note:

⇒ The report shall not be reproduced, except in full, without the written approval of the laboratory.

⇒ The results indicated above are based on the tests carried out on the samples received in the laboratory.

⇒ Any Query regarding the report must be reported within 15 days from the date of testing.

For Civil Experts Consultants

Authorised Signatory



Scanned by CamScanner

CIVIL XPERTS
ISO 9001:2008
ONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC/BBMP/MS/W.No.12&13/SAND-Gradation/2016-17 : 21.03.2017

### TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

**Client** : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

**Agency** : **Sri. Muraliswamy,** Contractor, Bangalore.

**Name of Work** : Improvements & Asphalting of ward roads & connecting roads in Ward No.12 & 13 of Shettyhalli subdivision, Dasarahalli Zone, Package No.DZ 2015-16-(01), BBMP, Bangalore.

**Technical Reference** : IS : 2386 Part 1 - 1963 RA-2007

**Sample ID** : Fine Aggregates

**Date of Testing** : 21.03.2017

Total Wt. of Aggregates in gms 1000

| Is Sieve Size in mm | Cumulative Weight Passing in % | Spec.Limits as per IS 383-1970 (RA- 2007) | | | |
|---|---|---|---|---|---|
| | | Zone-I | Zone-II | Zone-III | Zone-IV |
| 10 | 100 | 100 | 100 | 100 | 100 |
| 4.75 | 93.00 | 90-100 | 90-100 | 90-100 | 95-100 |
| 2.36 | 77.80 | 60-95 | 75-100 | 85-100 | 95-100 |
| 1.18 | 58.20 | 30-70 | 55-90 | 75-100 | 90-100 |
| 600 Micron | 43.80 | 15-34 | 35-59 | 60-79 | 80-100 |
| 300 Micron | 12.30 | 5-20 | 8-30 | 12-40 | 15-50 |
| 150 Micron | 6.40 | 0-10 | 0-10 | 0-10 | 0-15 |

**Remarks :** This sample is under Zone-II specific limits.

**Note:**

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

For Civil Experts Consultants

Authorised Signatory



Scanned by CamScanner

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC/BBMP/MS/W.No.12&13/CC Solid Block/2017-18 : 25.04.2017

# TEST REPORT ON CEMENT CONCRETE SOLID BLOCKS

**Customer** : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

**Agency** : **Sri. Muraliswamy,** Contractor, Bangalore.

**Name of the Work** : Improvements & Asphalting of ward roads & connecting roads in Ward No.12 & 13 of Shettyhalli subdivision, Dasarahalli Zone, Package No.DZ 2015-16-(01), BBMP, Bangalore.

**Sample Received on** : 23.04.2017

**Date of Testing** : 25.04.2017

**Size of Blocks** : 400mm x 100mm x 200mm

**Cross Sectional Area** : 40000 $mm^2$

**Technical Reference** : IS: 2185 (Part 1) - 2005

**No. of Blocks Tested** : 08

| Sl.No. | Block ID | Wt. in Kg | Failure load (KN) | Compressive strength ($N/mm^2$) | Requirement as per IS 2185 (Part 1) - 2005 |
|---|---|---|---|---|---|
| 1 | Block 1 | 34.6 | 131.6 | 3.29 | Minimum required Compressive Strength of Individual Units 3.20 $N/mm^2$ |
| 2 | Block 2 | 35.7 | 130.5 | 3.26 | |
| 3 | Block 3 | 35.2 | 132.3 | 3.31 | |
| 4 | Block 4 | 36.4 | 133.5 | 3.34 | |
| 5 | Block 5 | 34.3 | 132.7 | 3.32 | |
| 6 | Block 6 | 36.5 | 130.2 | 3.26 | |
| 7 | Block 7 | 35.7 | 131.2 | 3.28 | |
| 8 | Block 8 | 37.5 | 132.0 | 3.30 | |

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 15 days from the date of testing.

**********

For Civil Experts Consultants

Authorised Signatory



Scanned by CamScanner

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

b No.: CECTC/BBMP/MS/W.No.12&13/Kerb stone/2017-18 16.05.2017

## TEST REPORT ON CONCRETE CORE (KERB STONE)

Name of Customer : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

Name of Agency : **Sri. Muraliswamy,** Contractor, Bangalore.

Name of work : Improvements & Asphalting of ward roads & connecting roads in Ward No.12 & 13 of Shettyhalli subdivision, Dasarahalli Zone, Package No.DZ 2015-16-(01), BBMP, Bangalore.

echinical Reference : IS:516-1959 (Reaffirmed 2008), SP-24:1983.

mple ID : Kerb Stone

mple Received on : 14.05.2017

ate of Testing : 16.05.2017

| o. | Dia of Core D (mm) | Height of Core H (mm) | Core Wt (Kg) | Density of Core (kg / $m^3$) | H / D | Correction factor (Based on H/D) | Failure Load (kN) | Core Strength ( $N/mm^2$) | Correction Factor for the Dia. (Strength of the Core x 1.08) | Corrected Cylinder Compressive Strength ($N/mm^2$) | Equivalent Cube Compressive Strength ($N/mm^2$) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50.00 | 79.50 | 0.379 | 2427.96 | 1.59 | 0.955 | 24.50 | 12.48 | 13.48 | 12.87 | 16.09 |
| 2 | 50.00 | 80.50 | 0.385 | 2435.76 | 1.61 | 0.960 | 25.70 | 13.09 | 14.14 | 13.57 | 16.96 |
| 3 | 50.00 | 81.00 | 0.403 | 2533.90 | 1.62 | 0.965 | 26.30 | 13.39 | 14.47 | 13.96 | 17.45 |

Note:

- The report shall not be reproduced, except in full, without the written approval of the laboratory.
- The results indicated above are based on the tests carried out on the samples received in the laboratory.
- Any Query regarding the report must be reported within 15 days from the date of testing.

********

For Civil Experts Consultants

Authorised Signatory

AE-12



Scanned by CamScanner

CIVIL EXPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

**NABL ACCREDITED AS PER ISO/IEC 17025:2005**

Job No.: CECTC/BBMP/MS/W.No.12&13/Cube/2016-17 30.05.2017

## TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

| | |
|---|---|
| **Client** | : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| **Agency** | : **Sri. Muraliswamy,** Contractor, Bangalore. |
| **Name of the work** | : Improvements & Asphalting of ward roads & connecting roads in Ward No.12 & 13 of Shettyhalli subdivision, Dasarahalli Zone, Package No.DZ 2015-16-(01), BBMP, Bangalore. |
| **Sample ID** | : Cement Concrete |
| **Size of cubes** | : 150mmx150mmx150mm |
| **Cross Sectional Area** | : 22500 $mm^2$ |
| **Technical Reference** | : IS: 516-1959 (Reaffirmed 2008) |
| **Grade of Concrete** | : $M_{15}$ |
| **Compressive Strength as on** | : $28^{th}$ day |

| Sl.No. | Date of casting | Date of testing | Weight of cube (Kg) | Failure load (KN) | Compressive strength ($N/mm^2$) |
|---|---|---|---|---|---|
| 1 | 02.05.2017 | 30.05.2017 | 8.276 | 367.8 | 16.35 |
| 2 | 02.05.2017 | 30.05.2017 | 8.337 | 371.9 | 16.53 |
| 3 | 02.05.2017 | 30.05.2017 | 8.425 | 396.4 | 17.62 |

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 15 days from the date of testing.

For Civil Experts Consultants

Authorised Signatory

JE-12



Scanned by CamScanner

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC/BBMP/MS/W.No.12&13/WMM/GR/2017-18 Date : 25.05.2017

### GRADATION FOR WMM
### MORTH TABLE-400-11

Client : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

Agency : **Sri. Muraliswamy,** Contractor, Bangalore.

Name of Work : Improvements & Asphalting of ward roads & connecting roads in Ward No.12 & 13 of Shettyhalli subdivision, Dasarahalli Zone, Package No.DZ 2015-16-(01), BBMP, Bangalore.

Date of Testing : 25.05.2017
Material : Wet Mix Macadam
Sample Location : WMM Mix Plant Oven Dry Wt (gm): **12400**

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 490 | 490 | 4.0 | 96.0 | 95-100 |
| 22.4 | 4320 | 4810 | 38.8 | 61.2 | 60-80 |
| 11.2 | 2520 | 7330 | 59.1 | 40.9 | 40-60 |
| 4.75 | 1580 | 8910 | 71.9 | 28.1 | 25-40 |
| 2.36 | 1260 | 10170 | 82.0 | 18.0 | 15-30 |
| 0.600 | 1180 | 11350 | 91.5 | 8.5 | 8-22 |
| 0.075 | 740 | 12090 | 97.5 | 2.5 | 0-8 |

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 15 days from the date of testing.

For Civil Experts Consultants

Authorised Signatory

AE-12



Scanned by CamScanner

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No: CECTC/BBMP/MS/W.No.12&13/BC/Bit/2017-18

14.06.2017

### BITUMEN DETERMINATION OF BITUMINOUS CONCRETE MIX

As per IRC : SP : 11 - 1984

| | |
|---|---|
| CLIENT | **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| AGENCY | **Sri. Muraliswamy,** Contractor, Bangalore. |
| NAME OF THE WORK | Improvements & Asphalting of ward roads & connecting roads in Ward No.12 & 13 of Shettyhalli subdivision, Dasarahalli Zone, Package No.DZ 2015-16-(01), BBMP, Bangalore. |
| SAMPLE I/D | Roads in Ward No.12 & 13 |
| DATE OF TESTING | 14.06.2017 |

### BITUMEN CONTENT DETERMINATION

| Description | Trail 1 | Trail 2 |
|---|---|---|
| 1. Weight of Mixture before Test, g | 500 | 500 |
| 2. Weight of Mixture after Test, g | 469.5 | 469 |
| 3. Weight of Asphalt and Mineral matter Extracted, g | - | - |
| 4. Weight of Mineral Matter, g. | - | - |
| 5. Weight of Ash, g | | |
| 6. Weight of Bitumen Extracted, g. (corrected) | 30.5 | 31.00 |
| 7. Bitumen content in % | 6.10 | 6.20 |
| 8. Average | 6.15 | |

**Note:**

- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples at site
- Any Query regarding the report must be reported within 15 days from the date of testing

For Civil Experts Consultants

Authorised Signatory

AE-12



Scanned by CamScanner

CIVIL XPERTS
ISO 9001:2008
CONSULTANTS & TESTING CENTER

# 174, Sri Ranga Complex
Amrutha Nagar Main Road
New Bank Colony, Konanakunte
Bangalore - 560 062.
Mobile : +91 97429 59595
Tele/Fax : 080-2632 2565
E-mail : civilexpertsltd@gmail.com
URL : www.civilexperts.in

## NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No: CECTC/BBMP/MS/W.No.12&13/BC/Gr/2017-18

14.06.2017

### GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

As per IS : 2386 and IRC : SP : 11 - 1984

| | |
|---|---|
| CLIENT | **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| AGENCY | **Sri. Muraliswamy,** Contractor, Bangalore. |
| NAME OF THE WORK | Improvements & Asphalting of ward roads & connecting roads in Ward No.12 & 13 of Shettyhalli subdivision, Dasarahalli Zone, Package No.DZ 2015-16-(01), BBMP, Bangalore. |
| SAMPLE I/D | Roads in Ward No.12 & 13 |
| DATE OF TESTING | 14.06.2017 |

**GRADATION AFTER EXTRACTION**

| Sieve Size in mm | Trail 1 | | | | Specified Limits as per MORTH specification table 500-18 (Grading-2) |
|---|---|---|---|---|---|
| | Weight Retained, gm | % Retained | %Cummulative Retained | Trail 1 | |
| 19 | 0 | 0 | 0 | 100 | 100 |
| 13.2 | 33.9 | 7.22 | 7.22 | 92.78 | 79-100 |
| 9.5 | 46 | 9.80 | 17.02 | 82.98 | 70-88 |
| 4.75 | 78 | 16.61 | 33.63 | 66.37 | 53-71 |
| 2.36 | 62.7 | 13.35 | 46.99 | 53.01 | 42-58 |
| 1.18 | 73.2 | 15.59 | 62.58 | 37.42 | 34-48 |
| 0.6 | 47.2 | 10.05 | 72.63 | 27.37 | 26-38 |
| 0.3 | 32.9 | 7.01 | 79.64 | 20.36 | 18-28 |
| 0.15 | 35.9 | 7.65 | 87.28 | 12.72 | 12-20 |
| 0.075 | 34.9 | 7.43 | 94.72 | 5.28 | 4-10 |

| Sieve Size in mm | Trail 2 | | | | Specified Limits as per MORTH specification table 500-18 (Grading-2) |
|---|---|---|---|---|---|
| | Weight Retained, gm | % Retained | %Cummulative Retained | % Passing | |
| 19 | 0 | 0 | 0 | 100 | 100 |
| 13.2 | 33.8 | 7.21 | 7.21 | 92.79 | 79-100 |
| 9.5 | 41.3 | 8.81 | 16.01 | 83.99 | 70-88 |
| 4.75 | 74.8 | 15.95 | 31.96 | 68.04 | 53-71 |
| 2.36 | 66.3 | 14.14 | 46.10 | 53.90 | 42-58 |
| 1.18 | 71.8 | 15.31 | 61.41 | 38.59 | 34-48 |
| 0.6 | 46.9 | 10.00 | 71.41 | 28.59 | 26-38 |
| 0.3 | 36.8 | 7.85 | 79.25 | 20.75 | 18-28 |
| 0.15 | 25.9 | 5.52 | 84.78 | 15.22 | 12-20 |
| 0.075 | 47 | 10.02 | 94.80 | 5.20 | 4-10 |

For Civil Experts Consultants

Authorised Signatory

Note:
- This test report should not be reproduced except in full, without written approval of the laboratory
- The results indicated above are based on the tests carried out on the samples received in the laboratory
- Any Query regarding the report must be reported within 15 days from the date of testing



Scanned by CamScanner